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A Study on adoption of Digital Based Collection in Micro-Finance Business with reference to Mumbai Region

I. TITLE OF RESEARCH PROPOSAL

"A Study on adoption of Digital based Collection in Micro-Finance Business with reference to Mumbai Region"

1.0 BRIEF INTRODUCTION TO RESEARCH THEMEz

"I dream of a Digital India where mobile and e-Banking ensures Financial Inclusion."– Prime Minister Narendra Modi (1st July 2015).

1.1 INTRODUCTION

Banking industry is an age old industry in India. "The Bank of Venice" was the first bank in the world that was established as a corporate bank. (In India Bank of Calcutta which got renamed as Bank of Bengal was the first bank which got established in Kolkata under British rule) (https://en.wikipedia.org/, *February 2019*). After this a number of banks were established and liquidated during the 19th century, and The Banking Regulation Act 1949 was passed to protect the interest of public. The major stages in the history of banking during the British rule can be summarized as follows:-

1) Establishment of three presidential banks at Bombay, Kolkata and Madras.
2) Establishment of Imperial bank of India.
3) Establishment of State Bank of India.
4) Establishment of Reserve Bank of India.

After this many private and public sector banks came up in India. But these banks were not able to reach the poor people. (India's, having almost one third of the world's poor, had the major objective of financial inclusion) (Avant Garde, 1st Oct'2011). Microfinance was the one who provided financial services to unbanked sections of population. At the same time the practices which certain money lenders were following have led the sector to greater scrutiny and stricter regulation.

(All this began when the economist cum professor Muhammed Yunus from Bangladesh started giving small loans to poor families and received timely repayment as well but failed to expand his project. And thereafter asked the government for their assistance which led to the foundation of

Grameen **B**ank in 1976) (Team Finezza, 30th Dec'2019). Today micro finance exists as a vibrant industry which has been a major contributor to financial inclusion even though many central and state government poverty alleviation programs are active. (About half of the population who still don't have saving account needs financial services to fulfill their needs, and Micro finance serves as a supplement to banks and reaches these borrowers to provide them services at their door step) (Avant Garde, 1st Oct'2011).

Micro Finance Institutions are the institutions which typically offer group loans and have human centered model for repayment. In a typical collection process either the MFI agent visits the borrower's house to collect the repayment in cash or the borrower walks to the branch to make the payment. This collection process enables MFIs receivables into liquid assets as quickly as possible. This traditional method includes customer's personal interaction with the MFI staff which led to greater awareness of financial products and greater trust in these financial products.

Improving collections for Microfinance Institutions

Microcredit:

Microfinance is one of the most powerful tools in alleviating poverty by providing sachet-sized financial products. Micro Credit has been defined as the provision of thrift, credit and other financial services and products of a very small amount to the poor in rural, semi-urban and urban areas for enabling them to raise their income levels and improve their living standards. MFIs in India operate under the NBFC-MFI license of RBI.

Collections:

(Micro Finance Institutions typically offer group loans and individual loans that have standardized repayment structure. The repayment cycle could be weekly, monthly or fortnightly depending on the scheme and institutions. An efficient collection process enables MFIs receivables into liquid assets as quickly as possible and also maintains goodwill with the borrowers) (D91 Labs, 29th April2020). In a typical collection process either an MFI agent visits the borrower to collect the repayment in cash or the borrower walks to a physical branch to make the payments.

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Pandemic challenges

The current outbreak of the COVID-19 pandemic prevents both the borrower and the MFIs agents to meet to enable the repayment in cash. Based on the RBI's moratorium announcement, most borrowers assume that their repayment installments are waived-off or the payment could be deferred without incurring interest rates. (The lack of a complete understanding of the RBI's moratorium for the borrowers puts additional pressure on the timely repayment of the borrower. The delay in repayments by the borrower affects the cash flow liquidity of the MFIs and impacts their repayment performance) (D91 Labs, 29th April2020).

Digital penetration

We believe educating borrowers about timely repayments and enabling them to repay digitally is the way to solve collections for MFIs. India's deep smartphone and mobile internet penetration indicate the access of digital apps in every household or a neighborhood household.

(The loan repayment could be viewed as a form of any utility bill payment (like electricity, mobile recharge, etc.), most of which have already moved digital through India's interoperable bill payment network called BBPS (Bharat Bill Payment System). BBPS along with the UPI provides a way to collect money through 3.5 million+ touch points from any individual against a bill (in this case the 'bill' being a loan repayment)) (D91 Labs, 29th April2020).

Financial literacy on repayments:

(The misunderstanding of the RBI moratorium facility nudges people to differ the loan payments without understanding the consequences of it. It is upon the MFIs and other lenders to educate the borrower through various channels about the disadvantages of deferring payments and nudge them to do timely payments in the best possible situation) (D91 Labs, 29th April2020).

This information should also be coupled with easy to understand DIY payment guides on how to make loan payments on UPI apps. Whatsapp, SMS, IVR are the three commonly used communication channels used predominantly by most households.

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Digital Based Collections in Micro Finance Industry

Even though Microfinance has been successfully growing as a cash intensive business model but cash based collection have some limitations over digital based collections such as high operational cost for the MFIs, high turnaround time, chances of fraud and inability to ascertain whether collection has come from borrower or from the group. (As per the MFIN publications about 90% of MFIs have adopted cashless methods however only 5% of repayments are cashless) (MFIN, 1st Feb'2019). While back end process are digitized but digital repayments still remains unconquered. The customers are unfamiliar about digital modes of transacting and repaying digitally still remains a bottleneck as compared to traditional methods.

(Microfinance companies have teamed up with Fintech and payment gateway companies to digitize some aspects of the collection process) (Financial Express by Shritama Bose on 20th August 2021). The main aim is to ensure that collection should not get hampered as the collection agent won't go to customer's place to collect the cash nor will the group meeting be held.

Microfinance companies have put up hybrid model in place where they are trying to combine both physical and digital modes of collection to avoid any kind of disruption in the process. These hybrid models are in place during the second wave of the pandemic when microfinance companies learned that they collection have to digital otherwise they will suffer from huge losses. During second wave of Pandemic in April-May of 2021 collection became a major challenge.

Harish Prasad, Head of Banking - India, FIS, said that the banks which are engaged in microfinance has been adopting multi-mode model for collection. These banks engaged in microfinance are exploring ways to make sure that collections are happening through digital channels like UPI where cash collection is not possible.

R Baskar Babu, MD & CEO, Suryoday Small Finance Bank, said the behavioural change of customers would have been time consuming and challenging affair before pandemic. But pandemic has put pressure on microfinance companies to go for digital collection. With this pandemic pressure about 3-5% of the customers are paying through digital mode. Even though this is very small proportion of the entire base but this will increase as it is beneficial to both customers and institutions. Microfinance companies are also looking for other ways of improving digital

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collection. For example Suryoday Small Finance Bank funds their customers through overdraft facility so that the customer is charged only for the amount he/she has withdrawn. The repayment of this overdraft facility is happening through digital mode which has shown a fair degree of success.

March'2021 report by KPMG and Microfinance Institutions Network identifies UPI (Unified Payments Interface), Aadhaar Pay and NACH (National Automated Clearing House) as channels for digital collection.

(The integration of technology will provide an opportunity for the MFIs to better leverage the benefits of human centered model in various ways like time spent by field officers in educating customer of new financial products, increasing operational efficiency, reducing cost, providing regular alert to better serve existing customers) (IFMR Lead by JP Morgan, December 2017).

(The shift towards digitization is now a central stage for micro finance institutions. Digitization is viewed as an essential tool for financial inclusion by micro finance companies. Digitization can take various forms in micro finance companies like equipping loan officers with tablets and mobile phones for speeding the loan process, etc.) (Oxford Development Studies 22 Nov 2021). Digitization is bringing a change in the way financial services are accessed in micro finance industry.

The digital based collection has both opportunities as well as challenges for micro finance institution.

Opportunities with Digital based collection in Micro Finance

1. It would increase collection efficiency.
2. Faster and cheaper transactions.
3. Would lead to reach more customers.

Challenges with Digital based Collection in Micro Finance

Even though digital based collection comes up with lots of advantages but at the same time it is accompanied with lots of problems:

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1. To find ways to preserve the relationship with their clients
2. With low income and limited/lack of technology knowledge clients can pose significant challenge for MFIs.
3. It disintegrates the client-Loan officer relationship which will lead to low local knowledge. As a result it will become difficult for MFIs to design the new products as per client needs.

Beyond the advantages that digitization is supposed to bring it may also hinder the financial inclusion of micro finance institutions if it completely replaces the loan officer and client relationship. Even though we move into digital micro finance institutions we still have to keep in mind that the relationship between field officer and customers has to be maintained which is the base of micro finance institutions.

The increasing use of digital tools has had an impact across all sectors of the economy. The financial sector has also seen itself driven into this new digital era, and microfinance is not an exception. As digital tools are introduced by MFIs, as new information-gathering and communication channels in order to interact with their clients and to deliver their services, the face-to-face long-term relationships between the clients and the MFI, which have been the main innovation in microfinance, may be affected. Even though digital technology would not be able to replace the face –to-face interaction of client but it can be seen as a compliment with which micro finance institutions opens up new channels for communications with clients. With the lack of trust and low level of financial education the institutions need to invest in educating clients about benefits of digitization.

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2.0 LITERATURE REVIEW

The researcher has reviewed a number of studies such as:

Sr No	Category	Authors	Findings
1	History of Banking	Vyomkesh Bhatt	Modern banking in India originated in the mid of 18th century. Banking was started from bank of Calcutta in India.
		Andrew Beattie	Banking has been around since the first currencies were minted and wealthy people wanted a safe place to store their money.
2	The evaluation of State Bank of India	Bagchi Amiya Kumar	the era of the presidency bank 1827 to 1920
3	Need of Financial Inclusion	Avant Garde, 1st Oct'2011	India having almost one third of the world's poor. Banks were not able to reach the poor hence financial inclusion was required.
4	Evolution of Microfinance	Team Finezza, 30th Dec'2019	Economist cum professor Muhammed Yunus from Bangladesh started giving small loans to poor families which later led to the foundation of Grameen Bank in 1976
		Avant Garde, 1st Oct'2011	With financial inclusion emerging as a major policy objective in the country, Microfinance has occupied centre stage as a promising conduit for extending

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			financial services to unbanked sections of population. At the same time, practices followed by certain lenders have subjected the sector to greater scrutiny and need for stricter regulation.
5	Banker to the Poor	Muhammad Yunus (2003)	Micro-Lending and the Battle Against World Poverty.
6	Percentage of cashless repayment	MFIN, 1st Feb'2019 Vivek Kapur, Nikhil Srivastava, Amit Chaudhary, Praveen Kumar, Varundeep Kaur, Saurabh Johri, Manoj Kumar, Hardeep Sharma, Manoj Sharma and Devidas Sharma	About 90% of MFIs have adopted cashless methods however only 5% of repayments are cashless
7	Opportunities with digital technology	IFMR lead (Microfinance Institutions and digitization in India), JP Morgan, December2017 Anisha Singh, Prachi Agarwal and Parul Agarwal	Increasing operational efficiency, reducing cost, sending regular alert
8	New ways to boost collections	Shritama Bose on 20th August 2021	Lenders have now begun to team up with fintech players and payment gateway companies to digitise some aspects of the collection process. The aim here is to ensure repayments are not hurt even when group meetings cannot be held or agents cannot go out for collections.

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9	Improving collection of microfinance	D91 Labs,29th April2020 Geetika Shukla, Lizann Fernandez & Dharmesh Ba	Collections of MFIs can be improved through digital modes of repayment.
10	Trade-offs needs to be considered when digitizing collections	Digitizing microfinance by Oxford development studies, 22nd November 2021 Juliana Siwale	If we are getting digital collection in Place still the loan officer and customer's interactions should not be stopped.
11	Microfinance Industry in Present Day	Team Finezza, 30th Dec'2019	Today, Microfinance allows the provision of financial services to low-income clients or solidarity lending groups, including consumers and the self-employed, who lack convenient access to banking and related services.
		Avant Garde, 1st Oct'2011	Microfinance Institutions (MFIs) in India exist as NGOs (registered as societies or trusts), Section 25 companies and Non-Banking Financial Companies (NBFCs).
12	How Indian MFIs can Leverage Digital to Offset External Shocks	Leadsquared, 21st Oct2021 Shibani Roy	Today, the micro-credit industry needs a reliable, agile, and digital lending and collections framework.

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3.0 RESEARCH PROBLEM

A study on the problems of Digital based Collection in Micro-Finance Business such as:

1. Security Concerns
2. Legacy of Traditional Banking Habits
3. Demographic Factors
4. Complexity

3.1 OBJECTIVES OF THE STUDY

The primary objective of this research is to identify the problems microfinance companies are facing in digital collection. Most of the collection in microfinance companies is done in cash and not digitally even though digital technology is in place. The following are the objectives of the research:-

1) To study the various challenges faced in increasing the digital collection from customers of micro finance institutions.

2) To identify the ways and means of managing the challenges of micro finance in digital based collection.

It is crystal clear that the Indian economy is undergoing a fundamental shift. It is changing rapidly and also dramatically. It is also clear that the economy is no longer local but global in scope so digital collection is must for microfinance institutions. This will lead to increased collections as field officers are not able to reach customers living in far off places.

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4.0HYPOTHESIS OF THE STUDY

The hypotheses of the study is as follows

Research question

A critical study on the problems of digital based collection in microfinance companies for Mumbai Region?

Independent Variables

1. Security Concerns
2. Demographic Factors
3. Legacy of Traditional Banking Habits
4. Complexity of use

Dependent Variable

Adoption rate of digital collection by customers

Alternate Hypothesis: H1

1. There is a negative correlation between Security Concerns and the adoption rate of digital collection by customers.
2. There is a negative correlation between Demographic Factors and the adoption rate of digital collection by customers.
3. There is a negative correlation between Legacy of Traditional Banking Habits and the adoption rate of digital collection by customers.
4. There is a negative correlation between Complexity of use and the adoption rate of digital collection by customers.

Null Hypothesis: H0

1. There is no relationship between Security Concerns and the adoption rate of digital collection by customers.
2. There is no relationship between Demographic Factors and the adoption rate of digital collection by customers.
3. There is no relationship between Legacy of Traditional Banking Habits and the adoption rate of digital collection by customers.
4. There is no relationship between Complexity of use and the adoption rate of digital collection by customers.

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4.1RESEARCH DESIGN AND METHODOLOGY

This study is an empirical survey. Therefore, the researcher will adopt a method suitable for this purpose. The data collected for this study will be both primary as well as secondary data. The primary data will be collected from internal sources of Micro Finance Institutions and allied Finance Institutions. The secondary data will be collected on the basis of different journals and magazines, different internet sites, annual reports of Ministry of Finance, and other trusted publications. Following are the two important sources of data collections:-

a) Primary Data

Primary data will be collected by researcher through various methods like interviews, surveys, questionnaires etc. Primary data will be one of the main sources of collecting information on digital based collection in the field of micro finance business. The researcher will prepare a questionnaire in the form of "GOOGLE FORMS" which will be sent to the various customers of micro finance institutions as well as officers of such institutions. The responses will be collected from the sample.

b) Secondary Data

Secondary data will be collected by researcher from sources such as

1) RBI Reports
2) Banking reports
3) Micro finance Institution's reports
4) Research Journals
5) News Papers and Periodicals.
6) Internet

These will be the various sources of secondary data.

c) Questionnaire and Schedule Method

A questionnaire refers to a device for securing answers to questions by using a form which the respondent fills in by himself. It will consist of a number of questions printed or typed in a definite order. These forms will be mailed to the respondent who is expected to read and understand the questions and reply to them by writing the relevant answers in the spaces provided. Ideally speaking respondent must answer to a verbal stimulus and give a written or verbal response. Its purpose is to collect information from the respondents who are scattered over a vast area. A schedule is a structure of set of questions on a given topic which are asked by the interviewer or investigator personally. The order of questions, the language of the questions and

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the arrangement of parts of the schedule will not be changed. However, the investigator can explain the questions if the respondent faces any difficulty. It will contain direct questions as well as questions in tabular form. Questionnaire and Schedule will include open-ended and close-ended questions. Open-ended questions will allow the respondent considerable freedom in answering the questions in detail. The close-ended questions have to be answered by the respondent by choosing an answer from the set of options given under a question just by selecting any one of them.

4.2DATA AND TOOLS:

The tool which will be used for this study will be R software. And the universe of this study is shown in the following table.

MICRO FINANCE INSTITUTIONS IN MUMBAI

Sr no	Company Name	Number of Branches	Average Number of Customers in a branch
1	Centrum Microcredit Limited	26	2800
2	Agora Microfinance India Limited	11	2000
3	Svasti Microfinance Private Limited	20	5000
4	Unnati Microfin Private Limited	9	2600
5	Hindusthan Co-op Society Limited	26	1800
6	Jaro fincap Private Limited	9	4000
7	Sarthi Finance Consultancy LLP	28	1500
8	Svatantra Microfin Pvt. Ltd.	3	2500
9	Pahal finance Services Private limited	3	2500
10	Svamaan Financial Services Pvt. Ltd.	1	1200
11	Fortune Credit Capital Limited	2	2100
12	RBL Bank	24	3500
13	M Power Micro Finance Pvt. Ltd	6	2500
14	Jana Small Finance Bank	17	8000
15	Suryoday small finance bank	17	6300
16	Equitas Small Finance Bank	7	2100
17	Ujjivan small finance bank	15	5000
18	ESAF Small Finance Bank	4	1500
19	Bandhan Bank	33	10000
20	HDFC Bank (Financial services)	7	2100
Total		**268**	**69000**

The above table shows that, there are 20 micro finance institutions in Mumbai having 268 branches and 69000 thousands customers.

Sample of the Study:

The sample of the study = I * (10% of B) * C

Where:

i) I - Sample of the Institutions

The researcher will select all the 20 institutions for study.

ii) B - Sample of the Branches

The researcher will select 10% of the branches from each institute. So total 27 branches will be selected for study.

iii) C - Sample of the customers

The researchers will select 20 borrowers/customers per branch. So total of 540 customers will be selected for study.

5.0 SCOPE OF THE STUDY

The study will focus on the review of status of digital based collection of micro finance in Mumbai area under study based upon the analysis of primary data.

The study will analyze various problems of digital based collection in Mumbai area under study.

6.0 LIMITATION OF THE STUDY

This study is limited to the following:

a) The study is limited by period of 5 years from 2016-2017 to 2020-2021.

b) The geographical area of the study is limited to Mumbai.

c) The study is limited to digital based collections only.

d) The study is limited to micro finance institutions only.

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7.0 SIGNIFICANCE OF THE STUDY

Micro finance institutions must establish a competitive edge through strategic responses to environmental changes. The micro finance institutions executives need to examine and understand the present position of their respective organization. Obviously, the micro finance Institutes that can adapt its culture to change, redesign the structure accordingly, will have a powerful advantage over the others. The newly set up micro finance institutions in the private sector as well as NBFCs have started changing the nature of banking itself, especially because of their inherent advantages in terms of startup capital, location, adoption of latest management systems, computer and communication technologies. It is necessary to make a note of the revolutionary changes in technology. If financial markets could cut across national boundaries to emerge as truly borderless, it was predominantly due to the use of information technology (IT). The application of IT now spans from ATMs to highly sophisticated applications in "derivatives" trading.

Many micro finance companies have proper set up of digital based collection but these companies are facing a lot of problems in digital based collection. The major problems that micro finance companies are facing are the following:

1. **For younger generation:** Micro finance companies have women as customers which are mostly above 25 years of age. So these customers have a mindset that only younger generation can use technology.
2. **Too Complex:** To pay the EMI digitally customers should know the technology so that they can transfer the EMI to microfinance companies digitally. But customers think it is too complex so they are not ready to learn the technology.
3. **Traditional Banking:** The customers are used to traditional method of physical collection. They are not ready to switch to digital collections as these customers are not flexile and continue with the same old process of cash collection.
4. **Not safe:** Customers have a mindset that it is not safe to pay the EMI digitally.

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RELEVANCE OF THE RESEARCH WORK

The importance of this research work is to highlight the problems that micro finance companies are facing in digital collection and provide them solution to these problems so that digital collection can get full-fledged in micro finance companies.

Micro finance Companies and NBFCs have witnessed two very bad phases of their collections. These two phases are:

1. One during demonetization (7th November'2016). When the currency got changed the customers did not have cash in new currency and had to withdraw from ATMs to pay the EMI. Withdrawing from ATM was not easy during that time as the government had put a limit on the amount you can withdraw. And all this hampered the collections of micro finance companies and NBFCs to a great extent.
2. The second one during Covid-19 pandemic (21st March 2020). When people were not allowed to step out of their house as per the government rules, the company employee could not go to customer's place to collect the EMI. And because of this the EMI did not get collected and collection again got hampered to a great extent.

   Since the micro finance staff was not able to meet the customers during this time it led to misunderstanding of RBI's moratorium as well. The customers assumed that their installments are waived off. All this further affected the cash flow liquidity of MFIs. So educating customers about timely and digital repayment can solve the collections problem for MFIs.

Had the digital collection been in place these situations would not have hampered the collection and the EMI would have reached the companies digitally without any difficulties.

Digital based collection can help micro finance companies a lot but to get digital based collection in place we have to first identify the problems in digital based collection and then come up with solutions. Some problems due to which digital collection is not happening is already identified in previous research papers so I do my research and see whether these problems actually are the main root cause or whether there are others problems due to which digital collection is not happening.

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8.0 TENTATIVE SCHEME OF CHAPTERISATION:

The thesis has been divided into five chapters outlined as follows:

Chapter I - Introduction

This chapter will give the background of microfinance, the reason why the microfinance institutions came into existence. This chapter will also outline the objectives, limitations, hypothesis, methodology and the statement & significance of the study.

Chapter II - Review of Literature

This chapter will present the review of past studies. This chapter will give the brief about what past researches have presented and help in my research study further.

a) **Conditions of Digital Based Collection of Micro Finance:**
   This chapter will present the current status of digital based collection of micro finance in area under study. How much per cent the micro finance companies are doing digital collection. This chapter will be based upon analysis of primary data.
b) **Problems of Digital Based Collection in Micro Finance:**
   This chapter will analyse various problems of digital based collection in area under study. The chapter will include various problems such as infrastructural problems, operational problems, human resources problems, finance problems and marketing problems.

Chapter III – Research Methodology and Design

This study is an empirical survey. Therefore, the researcher will adopt a method suitable for this purpose. The data collected for this study will be both primary as well as secondary data. The primary data will be collected from internal sources of Micro Finance Institutions and allied Finance Institutions. The secondary data will be collected on the basis of different journals and magazines, different internet sites, annual reports of Ministry of Finance, and other trusted publications.

Chapter IV – Data Collection

The data will be collection through a questioner. Questioner will consist of a number of questions printed or typed in a definite order. These forms will be mailed to the respondent who is expected to read and understand the questions and reply to them by writing the relevant answers in the spaces provided. Ideally speaking respondent must answer to a verbal stimulus and give a written or verbal response. Its purpose is to collect information from the respondents who are scattered over a vast area. A schedule is a structure of set of questions on a given topic which are asked by the interviewer or investigator personally. The order of questions, the language of the questions and the arrangement of parts of the schedule will not be changed. However, the investigator can explain the questions if the respondent faces any difficulty. It will contain direct questions as well as questions in tabular form. Questionnaire and Schedule will include open-ended and close-ended questions. Open-ended questions will allow the respondent considerable freedom in

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answering the questions in detail. The close-ended questions have to be answered by the respondent by choosing an answer from the set of options given under a question just by selecting any one of them.

Chapter V – Analysis

The tool which will be used for this study will be R software. And the universe of this study will consist of 20 micro finance institutions in Mumbai having 268 branches and 69000 thousands customers.

Sample of the Study:

The sample of the study = I * (10% of B) * C

Where:

i) I - Sample of the Institutions

The researcher will select all the 20 institutions for study.

ii) B - Sample of the Branches

The researcher will select 10% of the branches from each institute. So total 27 branches will be selected for study.

iii) C - Sample of the customers

The researchers will select 20 borrowers/customers per branch. So total of 540 customers will be selected for study.

Chapter VI – Findings, Conclusions & Recommendations

This last chapter will give conclusions and recommendations. It will cover the fulfilment of objectives and testing of hypothesis in the light of discussions and analysis presented in the preceding chapters.

A detail bibliography is added in the appendix. This research will open new avenues in the research related with micro finance.

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